Conservation News
Newsletter of the Clallam Conservation District SUMMER 2003

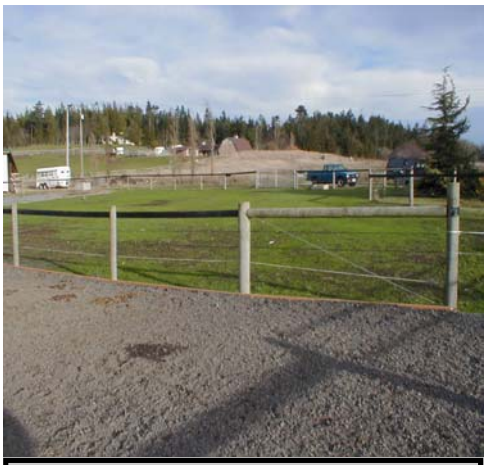
FIVE ACRE SCHOOL IMPROVES HORSE FARM

Five Acre School owners, Bill Jevne and Juanita Ramsey-Jevne, recently worked with the Conservation District to improve their horse property. Five Acre School is a private school offering an experiential learning environment for preschool through 6th grade children. As the name suggests, the school is located on five acres on Lotzgesell Road just east of the Dungeness Spit Recreation Area entrance.

Included in the school's experiential learning emphasis, is a horse-riding program. The program uses six Icelandic horses, a sturdy, versatile and sensible breed that originated when Vikings brought horses to Iceland in the ninth century.

The horses had been confined in a large paddock (about one acre in size), just east of the school building. As is typical with sacrifice areas, this area was devoid of vegetation and was prone to dusty conditions in the summer and mud in the winter. Without any vegetation, manure nutrient recycling was not occurring and manure collection was difficult.

District planner, Jennifer Coyle-Bond, coached a group of students through a planning process aimed at improving the horse farm. The students decided to reduce the current confinement area to approximately 60'x120' in size (1/6 acre) and plant grass on the old confinement area to help minimize dust and mud. This alternative resulted in a net increase of 1 acre of useable pasture.



NEWLY PLANTED PASTURE

The Jevnes' then worked with the District to design a mud-free surface that would allow for easy manure removal. The existing ground surface was scraped free of organic material and geotextile fabric was installed. This fabric, commonly used in road building, allows water to pass through but prevents mud from working up. Three-quarter-inch minus crushed rock was then installed and compacted on top of the fabric at a minimum depth of six inches. Runoff from the confinement area is directed into the newly planted pasture.

The Jevnes' also erected two new horse shelters in the confinement area and equipped the shelters with gutters and downspouts to control roof runoff. Original plans were to direct the roof runoff water into a large stock watering tank, but worries regarding the West Nile Virus led the Jevnes' to develop a different plan for stock watering. They wanted to minimize mosquito breeding grounds and a large tank would be difficult to clean on a regular basis. So, it was decided to direct roof water via the downspouts into rain barrels equipped with faucets connected to hoses, which pass through buried conduit and drain onto the newly planted pasture. The rain barrels have overflow outlets that convey excess water into pasture as well.

The Jevnes regularly remove manure from the confinement area and compost it. The finished compost is applied to their pastures or given away to local gardeners. Future plans include planting a windbreak between the confinement area and the school building. Cost share funds from the District's Cost Sharing Program were used to help implement the new confinement area and the roof runoff management system.

DOWNSPOUT & RAIN BARREL

WHAT'S THE FUSS ABOUT STORMWATER?

Storm · water (stôrm´wôt´or) ***n.*** **1.** runoff **2.** the portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes and other features of a stormwater drainage system into a defined surface waterbody, or a constructed infiltration facility.

The word "stormwater" is in the news a lot these days. The County and cities are debating how to control stormwater or at least minimize its impacts. Businesses are being told to control their runoff. And, during the rainy season, many landowners complain to authorities about getting flooded by runoff from their neighbors or the County road ditch.

There was a time in the not-so-distant past when civil engineers focused on how to get rid of rainwater in order to protect the health and welfare of people. They did a pretty good job of it. However, with more and more people, houses, businesses, parking lots, roads, lawns, etc., getting rid of the water becomes more challenging. Furthermore, we've discovered that getting rid of all that water (and all the oil, fertilizer, herbicides and other things in it) is creating its share of problems. Now we are faced with the challenge of capturing that runoff, filtering out the contaminants in it, and either infiltrating it into the groundwater or releasing it to surface waters at a significantly slower rate.

Studies have found that in a natural, forested, Puget Sound ecosystem, over 35 percent of the total annual precipitation is intercepted by the vegetation, over 35 percent infiltrates into the groundwater, and about 25 percent becomes subsurface flow that resurfaces as springs, streams and lakes. Astonishingly, less than one percent of the annual precipitation runs off the surface of the ground. Keep in mind that this is under pristine forested conditions. Under typical developed conditions, vegetation intercepts about 25 percent of the annual precipitation, 15 percent infiltrates into the groundwater, 30 percent becomes subsurface flow, and 30 percent becomes runoff.

Not only does the runoff increase flood-like conditions, it increases contamination of the receiving waters. In addition, the groundwater – our primary source of drinking water – is not recharged as much. Instead, scarce freshwater quickly becomes abundant saltwater.

What Is Clallam Conservation District Doing About Stormwater?

Clallam Conservation District provides technical and financial assistance to landowners to help correct or prevent stormwater problems at their source. In collaboration with the Cline Irrigation District, County Road Department, and private landowners we are working on a comprehensive stormwater management plan for the area draining into the inner Dungeness Bay. In response to a request by the Irrigation District to help them address water quality problems in their ditch system, we decided to perform an analysis of all the surface waters in the vicinity. We have completed the mapping of the area.

Our next step is to identify alternatives for managing the irrigation water and controlling stormwater. Potential treatments include piping of irrigation ditches and biofiltration of irrigation and stormwater. Biofiltration (a designed treatment using a combined soil and plant system) can be done on individual lots or at a scale that includes multiple sources or runoff.

We recently completed a watershed analysis of the Siebert Creek watershed. Utilizing Geographic Information Systems (GIS) technology we identified all the roads and surface water routes in the watershed. We then identified probable sources of significant stormwater to Siebert Creek and its tributaries. The nonprofit group Pacific Woodrush is following up this analysis with on-the-ground monitoring.

Unfortunately a grant proposal we submitted to the Department of Ecology to expand this effort to other watersheds in eastern Clallam County was not awarded funding.

CALENDAR OF EVENTS

Streamkeepers of Clallam County is seeking new volunteers. No experience necessary, free training starts in June. For more information call Ed or Hannah @ 360-417-2281 or email: streamkeepers@co.clallam.wa.us"

USDA Farm Service Agency County Committee is seeking a new member to attend local meetings and represent female farmers. The position is unpaid, requiring approximately 2 hours per month. Contact Chris Gorton (425) 334-3131

Noxious Weed of the Quarter

Oxeye Daisy is a perennial that grows one to three feet tall. The leaves are toothed, and the flowers have a bright yellow center and white petals. Each flower is usually on a single stem and is one to two inches across. It spreads by seed or by creeping rhizomes (underground stems). Oxeye daisy aggressively invades fields, forming dense populations that outcompete desirable forage or crop plants. It is very bitter and most animals avoid eating the foliage. It is not poisonous, but gives milk an off-flavor if dairy animals consume it. It can be seen on roadsides and in meadows throughout Clallam County. Mowing can eliminate seed production, but may stimulate shoot growth, leading to more flowering. Maintaining a healthy pasture by means of adequate watering and fertilizing will help the grasses to outcompete oxeye daisy. Herbicides can also be used.

For more information, call the County's Noxious Weed Control Program, **417-2442.**

West Nile Virus

Summer is upon us, bringing bright blossoms, cool breezes...and mosquitoes that could be carrying the West Nile virus. During 2002, West Nile caused 277 deaths across the United States. No human cases have yet been reported in our state, but many officials believe people here could soon be affected.

Many cities and counties have plans in place to safely control mosquitoes on public property, and horse owners are getting their horses vaccinated. But what should homeowners do?

According to the Department of Ecology (Ecology), you can control mosquitoes to protect your family from West Nile virus without poisoning your property or harming the environment.

If you find a dead bird don't handle the body with your bare hands. Contact your local health department for instructions on reporting and disposing of the body.

"Whatever you do, don't drain wetlands," said Kathleen Emmett, Ecology aquatic pesticide permit coordinator. "Healthy wetlands are full of natural predators such as birds and frogs that eat mosquitoes." Wetlands also help clean polluted waters, prevent floods and protect drinking water supplies. Mosquitoes can actually increase if wetlands are destroyed; unlike their predators, many mosquito species need only a small puddle or depression in which to breed.

Stormwater ponds in neighborhoods and housing developments can be a potential breeding ground, but "as with wetlands, the benefits of these manmade ponds far outweigh the risk of West Nile virus," Emmett said. Homeowners or their neighborhood associations may wish to hire a licensed professional to control mosquito larvae if stormwater ponds appear to be a problem.

Don't use non-native fish or other wildlife to control mosquitoes in ponds; they're not very effective and may threaten native species. Check with the Washington Dept. of Fish and Wildlife before releasing fish into any waterbody.

Ecology recommends that homeowners destroy mosquito larvae before they hatch with a naturally-occurring organism, Bacillus thuringiensis israelensis, or Bti. Bti has been used throughout the world for more than 20 years and has demonstrated little or no risk to humans, pets, birds, or water quality.

Individuals may use Bti products labeled for home and garden use in enclosed ponds and pools on their own property, as long as the water does not drain to natural waters such as lakes, rivers, streams or ground water. Permits are required before pesticides can be introduced to lakes, rivers, streams, and wetlands and must be applied by a licensed applicator.

The most important steps in protecting your family are to prevent mosquito bites and reduce mosquito habitat around your home. Follow these tips:

⇒Make sure window and door screens are "bug tight." Repair or replace if needed.

⇒Stay indoors at dawn and dusk when mosquitoes are the most active.

⇒Wear a long sleeve shirt, long pants, and a hat when going into mosquito-infested areas, such as wetlands or woods.

⇒Use a mosquito repellant containing DEET, and carefully follow directions on the label.

⇒Empty anything that holds standing water i.e., old tires, buckets, plastic covers, and toys.

⇒Change water in your birdbaths, fountains, wading pools and animal troughs weekly.

⇒Recycle unused containers, bottles, cans, and buckets that may collect water.

⇒Make sure roof gutters drain properly, and clean clogged gutters in the spring and fall.

⇒Fix leaky outdoor faucets and sprinklers.

For more information, contact the Clallam County Public Health Information Line for West Nile Virus (360) 417-2431 or your local public health department.

Use Water Wisely

Did you know that efficient water use can save you money on utility bills, and reduce the costs for sewer and septic services. Did you also know the water people use indoors and outdoors to drink, cook, wash, clean, and landscape with is the same water salmon need in rivers and streams to survive. The need to conserve water is greater than ever. You can help preserve the environment, save money, save fish and save water by following some of the following suggestions:

In The Home

◊ Reduce water flow by installing low-flow fixtures including shower heads, faucet aerators and toilet dams.

◊ Take short showers instead of baths.

◊ Turn water off while shaving, tooth brushing, or dishwashing.

◊ Check for and repair leaks in toilets and faucets.

◊ Wash only full loads in the washing machine and dishwasher and use low water-use settings.

Around The Yard/Garden

◊ Use soaker hoses.

◊ Water the lawn in the early morning or evening.

◊ Compost yard wastes.

◊ Mulch around plants to retain moisture and control weeds.

◊ Use drought-tolerant plants.

◊ Set mower to 2 1/2 inches mowing height; keeping the grass longer shades the ground and reduces the need for watering.

◊ Use a mulch mower that recycles cut grass into the lawn as food for your grass.

◊ One inch of water a week, including rainfall, is all your lawn needs. Silt loam and clay soils can be watered less frequently than sandy and gravelly soils. A sandy or gravelly soil may require two half-inch irrigation applications per week.

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To defray the cost of publishing this newsletter, and to help support our ongoing programs such as the native plant sale, workshops and community education and outreach, the Clallam Conservation District is selling advertising space in the form of Conservation Sponsorships.

For $50 per year, your company name will be printed four times in the sponsor section of the newsletter, or for $100 per year, your company business card will be printed once a year and your company name listed four times in the sponsor section. The Conservation News is published quarterly and is currently reaching 1400 households. The newsletter is also available for review on our web site. Your support will help us reach more people interested in getting involved in local conservation efforts.

If interested in becoming a sponsor, or if you would like to receive this newsletter, please call (360) 452-1912 ext. 109

Clallam Conservation District is a subdivision of state government created to promote the stewardship and conservation of natural resources in Clallam County. Public meetings are held on the first Tuesday of each month at 3:00 p.m. at the Clallam County Courthouse.

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INSIDE THIS ISSUE:

⇒ Five Acre School Farm Plan
⇒ Stormwater
⇒ Noxious Weed: Oxeye Daisy
⇒ Calendar of Events
⇒ West Nile Virus
⇒ Water Conservation
⇒ Sponsorships Drive

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